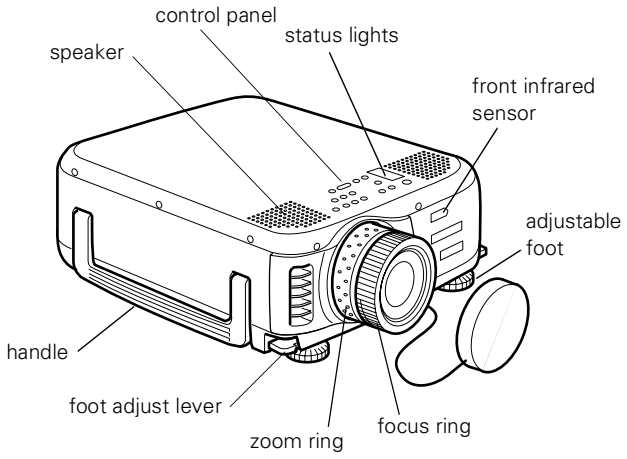
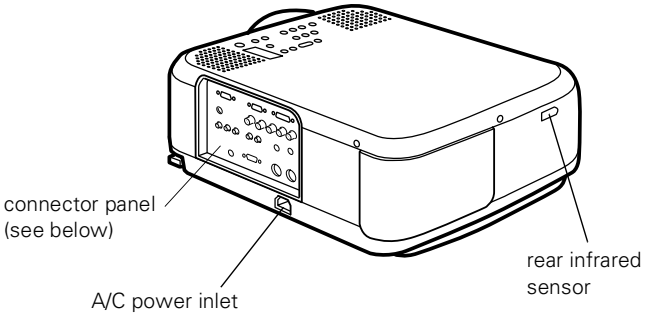
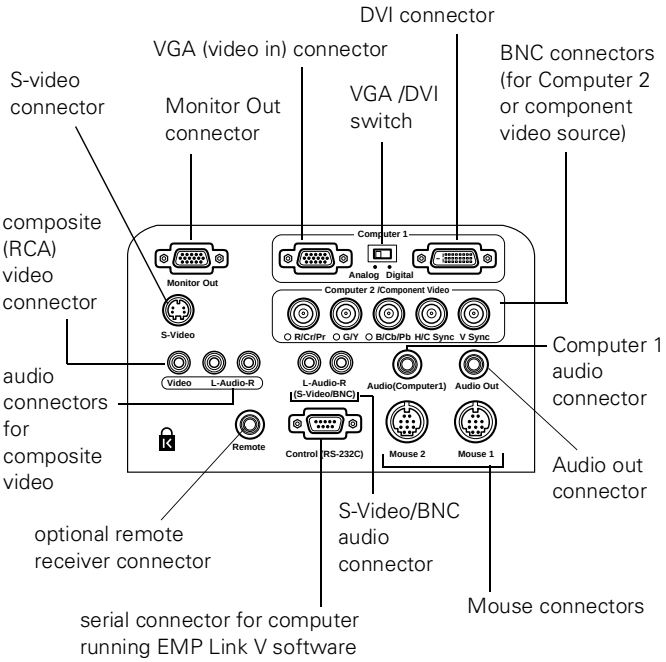






Projector Specifications

General

Type of display	Poly-silicon Thin Film Transistor (TFT)
Size of liquid crystal panels	Diagonal: 1.3 inches (33.6 mm)
Lens	F=1.7 to 2.3, f=49 to 63 mm
Resolution	1024 × 768 pixels (native display format)
Color reproduction	24 bit, 16.7 million colors
Brightness	3000 lumens (ANSI)
Contrast ratio	400 : 1
Image size	22 to 300 inches
Projection distance	3.6 to 47.6 feet (1.1 to 14.5 meters)
Projection methods	Front, rear, upside-down (ceiling mount)
Internal speaker system	3W × 3W stereo
Optical aspect ratio	4 : 3 (horizontal : vertical)
Zoom ratio	1 : 1.3
Noise level	38 dB
Keystone correction angle	± 30° maximum

Projection Lamp

Type	UHE (Ultra High Efficiency)
Power consumption	200 W
Lamp life	About 1500 hours
Part number	ELPLP12

Remote Control

Range	32.8 feet (10 meters)
Batteries	Alkaline AA (2)

Mouse Compatibility

Supports PS/2, USB, serial, ADB (optional cable required for serial and ADB)

Remote IR Receiver

Supports EPSON Remote IR Receiver, 10-foot cable (typical use for rear screen projection)

Dimensions

Height	6.1 inches (156 mm)
Width	11 inches (280 mm)
Depth	15.8 inches (403 mm)
Weight	15.2 lb (6.9 kg)

Electrical

Rated frequency	50 to 60 Hz
Power supply	100 to 120 VAC, 3.4 A 200 to 240 VAC, 1.7A
Power consumption	Operating: 285W Standby: 9 W

Environmental

Temperature	Operating: 41 to 104° F (5 to 40° C), non-condensing
	Storage: 14 to 140° F (–10 to 60° C), non-condensing
Humidity	Operating: 20 to 80% RH, non-condensing
	Storage: 10 to 90% RH, non-condensing

Safety

United States	FCC Part 15B Class B UL1950 Rev. 3
Canada	DOC ICES003 Class B CSA C22.2 No. 950 Rev. 3
CE Marking	Directive 89/336/EEC, 92/31/EEC EN 60950

Compatible Video Formats

The projector supports the following international video standards: NTSC, HDTV, PAL, and SECAM, as well as the monitor display formats listed below.

To project images output from a computer, the computer's video card must be set at a refresh rate (vertical frequency) that's compatible with the projector; see the following table for compatible formats. As noted below, some images are automatically resized to display in one of the projector's "native" formats (such as XGA). In addition, the frequencies of some computers may not allow images to display correctly; see your computer's documentation for details.

Mode	Refresh Rate (Hz)	Resolution
VGACGA	70	640 × 400
VGAEGA	70	640 × 350
VGA60	59.94	640 × 480
VGA72	72.809	640 × 480
VGA75	75	640 × 480
VGA85	85.008	640 × 480
NEC400	56.65	640 × 400
SVGA56	56.25	800 × 600
SVGA60	60.317	800 × 600
SVGA72	72.188	800 × 600
SVGA75	75	800 × 600
SVGA85	85.061	800 × 600
XGA43i	86.958	1024 × 768
XGA60	60.004	1024 × 768
XGA70	70.069	1024 × 768
XGA75	75.029	1024 × 768
XGA85	84.997	1024 × 768
SXGA1—70	70.012	1152 × 864*
SXGA1—75	75	1152 × 864*
SXGA1—85	84.999	1152 × 864*
SXGA2—60	60	1280 × 960*
SXGA2—75	75	1280 × 960*
SXGA2—85	85.002	1280 × 960*
SXGA3—43i	86.871	1280 × 1024*
SXGA3—60	60.02	1280 × 1024*
SXGA3—75	75.025	1280 × 1024*
SXGA3—85	85.024	1280 × 1024*
UXGA48i	96.08	1600 × 1200*
UXGA60	60	1600 × 1200*
UXGA65	65	1600 × 1200*
UXGA70	70	1600 × 1200*
UXGA75	75	1600 × 1200*
UXGA80	80	1600 × 1200*
UXGA85	85	1600 × 1200*

Mode	Refresh Rate (Hz)	Resolution
MACL13	66.62	640 × 480
MAC II 13	66.67	640 × 480
MAC16	74.55	832 × 624
MAC19—60	59.28	1024 × 768
MAC19	74.93	1024 × 768
MAC21	75.062	1152 × 870*
HDTV480P (ANSI/ SMPTE)	59.94	720 × 483
HDTV480P (ATSC)	59.94	704 × 480
HDTV480I (ANSI/ SMPTE)	59.94	720 × 487
HDTV480I (ATSC)	59.94	704 × 480
HDTV720P (SMPTE)	59.94	1280 × 720
HDTV1080P (ANSI/ SMPTE)	59.94	1920 × 1080
HDTV480I (ANSI/ SMPTE)	59.94	1920 × 1080
NTSC (SVGA)	60	800 × 438
NTSC (XGA)	60	1024 × 438
PAL (SVGA)	50	800 × 512
PAL (XGA)	50	1024 × 512
SECAM (SVGA)	50	800 × 512
SECAM (XGA)	50	1024 × 512

* The image is resized so that it displays using one of the projector's native formats.

Computer Video Port Pin Assignments

The Computer 1 analog port and the Monitor Out port are female video RGB, 15-pin micro-D-style connectors. Here are their pin assignments:

Pin #	Computer 1 port	Monitor Out port
1	Red video	Red out / red video
2	Green video	Green out / green video
3	Blue video	Blue out / blue video
4	Monitor (ID bit 2)	Reserved
5	GND	GND
6	Red video GND	GND
7	Green video GND	GND
8	Blue video GND	GND
9	+5V	Reserved
10	Synchronous GND	GND
11	Monitor (ID bit 0)	Reserved
12	SDA	Reserved
13	Horizontal sync	Horizontal sync
14	Vertical sync	Vertical sync
15	Reserved	Vertical sync

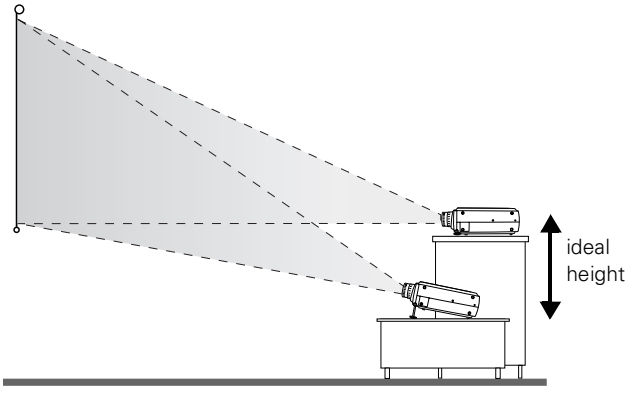
Positioning the Projector

Follow these guidelines to get the best results when projecting:

- ❏ Place the projector on a sturdy, level surface, between 3.6 and 48 feet from the screen.
- ❏ Make sure there is plenty of space for ventilation around and under the projector.
- ❏ Make sure the projector is within 10 feet of a grounded electrical outlet or extension cord and within 5 feet of the image source.
- ❏ Face the projector squarely toward the screen. Otherwise, your image won't be square.

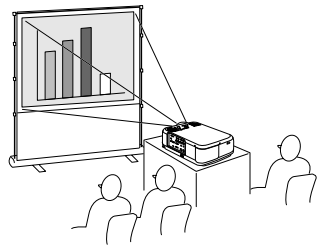
Note: *It's easier to position the projector when the screen is directly in front of the room. If the screen is placed diagonally in a corner, it's much more difficult to aim the projector squarely at the screen and get a non-distorted image.*

If you place the projector below the level of the screen, you'll have to tilt it up by extending the feet as shown. Tilting the projector upward causes the image to lose its square shape, but you can correct the distortion by pressing the Keystone button as described on page 6.

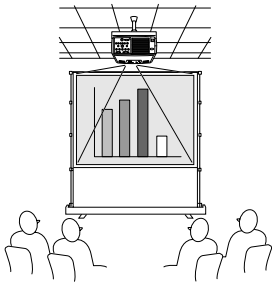


If you place the projector level with the bottom of the screen, the image will be square and you won't have to adjust it. If you place the projector higher than the bottom of the screen, the image will still be square, but you won't be able to fill the whole screen with the image.

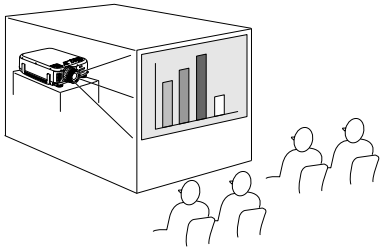
The projector can be installed for three different viewing setups: front projection, ceiling mounting, or rear projection onto a semi-transparent screen, as shown:



front projection



ceiling mounting



rear projection

To project from overhead, you'll need to select Ceiling in the projector's Advanced menu. To project from the rear, select Rear Proj.

If you're ceiling-mounting the projector and you place it above screen level, you'll have to tilt it down to position the image on-screen. This causes the image to lose its square shape. You can then correct the distortion by using the Keystone function in the projector's menu system or by using the Keystone button on the projector's control panel.

If you place the projector's lens so it's level with the top of the screen, the image will be square and you won't have to adjust it. If you place the lens lower than the top of the screen, you'll have to tilt the projector upward if you want to fill the whole screen with the image.

Image Size and Projection Distance

Use the tables below to estimate how far to place the projector from the screen. Since the size of the image can be changed by rotating the zoom ring, a range of distance is given for each screen size.

Note that if you tilt the projector upward by extending the feet or use electronic keystone correction, your image size may vary.

Standard lens

Diagonal screen size	Distance
30 inches	3.6 - 4.3 feet (1.1 - 1.3 meters)
60 inches	7.2 - 9.2 feet (2.2 - 2.8 meters)
100 inches	12.1 - 15.7 feet (3.7 - 4.8 meters)
200 inches	24.3 - 31.8 feet (7.4 - 9.7 meters)
300 inches	36.7 - 47.6 feet (11.2 - 14.5 meters)

Long throw zoom lens (ELPAL01)

Diagonal screen size	Distance
30 inches	4.46 - 5.87 feet (1.36 - 1.79 meters)
60 inches	9.35 - 12.2 feet (2.85 - 3.71 meters)
100 inches	15.8 - 20.5 feet (4.82 - 6.25 meters)
200 inches	32.1 - 41.5 feet (9.77 - 12.64 meters)
300 inches	48.3 - 62.4 feet (14.72 - 19.02 meters)

Wide angle lens (ELPAW01)

Diagonal screen size	Distance
30 inches	2.8 - 3.6 feet (0.85 - 1.09 meters)
60 inches	5.5 - 7.2 feet (1.69 - 2.19 meters)
100 inches	9.3 - 12.0 feet (2.82 - 3.66 meters)
200 inches	18.6 - 24.0 feet (5.67 - 7.33 meters)
300 inches	28.1 - 36.1 feet (8.57 - 11.00 meters)

Displaying an Image

Once the projector is connected to your computer or video source and plugged in, press the red Power button on top of the projector to turn it on. The power light flashes green as the projector warms up, and the projection lamp comes on in about 30 seconds. The power light stays green, and you may see a blue screen with the message No Signal displayed. This is normal.

Do one of the following:

❏ Turn on or restart your computer. In a few moments, you should see your computer display projected.

(Windows only: If you see a New Hardware Found message saying that it has found a plug-and-play monitor, click Cancel.)

❏ If you're projecting a video, press the Play button on your video source.

If a projected image fails to appear, see the next section for help.

What To Do If You See a Blank Screen

If you see a blank screen or a blue screen with the message No Signal after turning on your computer or video source, do one of the following:

❏ Make sure the cables are connected correctly, as described in the *User's Guide*.

❏ Make sure the power light is green and not flashing and the lens cover is off.

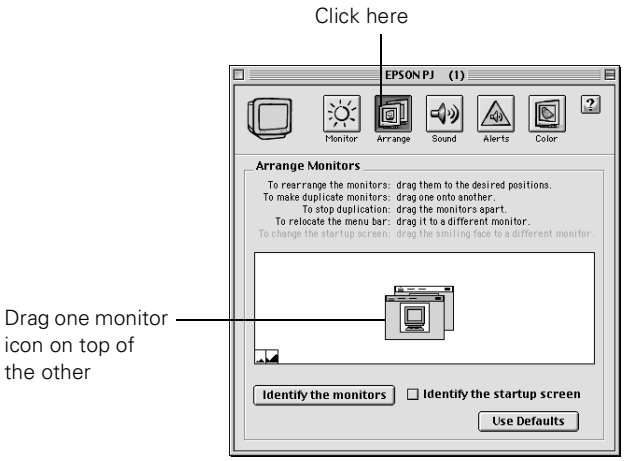
❏ Try restarting your computer.

❏ If you've connected more than one computer and/or video source, you may need to press the Computer or Video button on top of the projector to select the correct source. Allow a few seconds for the projector to sync up after pressing the button.

If you're using a PowerBook:

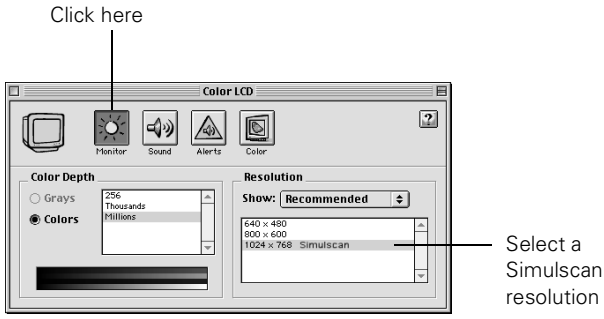
You may need to set up your system to display on the projector screen as well as the LCD screen. Follow these steps:

1. From the Apple menu, select Control Panels, then click Monitors and Sound.
2. Click the Arrange icon and drag one monitor icon on top of the other.


Click here
EPSON PJ (1)
Monitor
Arrange
Sound
Alerts
Color
Arrange Monitors
To rearrange the monitors: drag them to the desired positions.
To make duplicate monitors: drag one onto another.
To stop duplication: drag the monitors apart.
To relocate the menu bar: drag it to a different monitor.
To change the startup screen: drag the smiling face to a different monitor.
Drag one monitor icon on top of the other
Identify the monitors
Identify the startup screen
Use Defaults

If this option isn't available, you may need to select one of the Simulscan resolution settings:

1. Click the Monitor icon.



2. Select a Simulscan resolution as shown. Allow a few seconds for the projector to sync up after making the selection.

If you're using a PC laptop:

❏ Press the function key that lets you display on an external monitor. It's often labelled with an icon such as ⧉/▢ but it may also be labelled CRT/LCD. You may have to hold down the Fn key while pressing it. Check your laptop's manual or online help for details.

On most systems, the ⧉/▢ key lets you toggle between the LCD screen and the projector, or display on both at the same time. Allow a few seconds for the projector to sync up after pressing it.

❏ Depending on your computer's video card, you might need to use the Display utility in the Control Panel to make sure that both the LCD screen and external monitor port are enabled. See your computer's documentation or online help for details.

Resizing the Image

Some computer images need to be resized to display in the projector's native format: 1024 × 768 pixels. If only part of your computer image is displayed, you can correct it with the Resize button.

- ❏ Press the Resize button on the control panel. The screen image is automatically compressed.
- ❏ Continue pressing the Resize button to pan around the screen in the original resolution.

If you're projecting from video equipment, pressing the Resize button switches the aspect ratio between 4:3 and 16:9. If you've zoomed in on your image (using the E-Zoom button on the remote), you can press the Resize button to restore the original display size.

Adjusting the Image Shape

If the projected image isn't square or has a "keystone" shape, do one or more of the following:

- ❏ If your image looks like or , you've placed the projector off to one side of the screen, at an angle. Move it directly in front of the center of the screen, facing the screen squarely.
- ❏ If your image looks like or , press the + or — side of the Keystone button to correct the shape of the image. After correction, your image will be slightly smaller.

You can also perform electronic keystone correction using the projector's Setting menu.

Switching Between Picture Sources

If your projector is connected to more than one computer and/or video source, you can use the buttons on the control panel (or remote control) to switch between the different sources.

On the control panel, press the Computer button to switch between the computer sources and press the Video button to switch between standard (composite) video, S-Video, and component video (BNC).

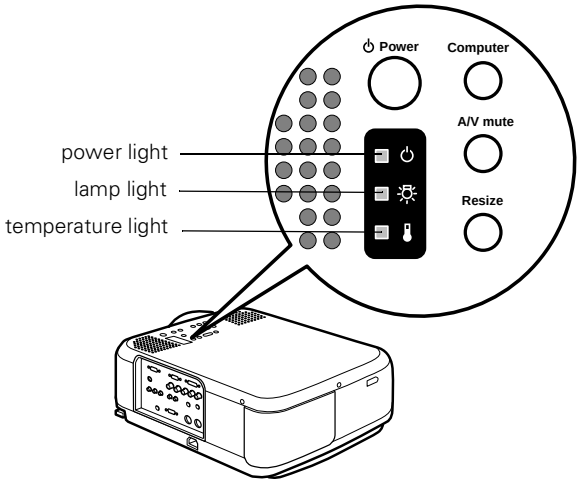
On the remote control:

- ❏ Press the Video button to switch between a standard composite video source and an S-Video source.
- ❏ Press the Comp1 button to select your first computer.
- ❏ Press the Comp2/YCbCr button to select your second computer or a component video source.

After you select a source, the screen goes dark for a moment before the image appears.

Projector Status Lights

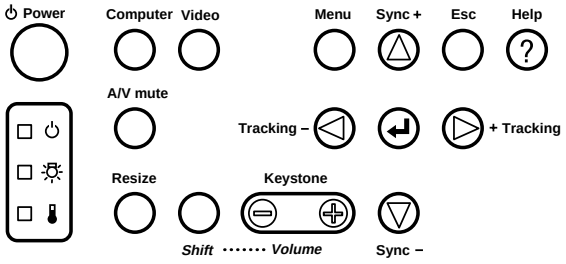
The lights on top of the projector indicate the projector's operating status.



Light	Status	Description and action
⏻	Orange	The projector is in sleep mode. You can unplug it to turn it off, or press the Power button to turn it on.
⏻	Flashing green	The projector is warming up. Wait for the image to appear.
⏻	Green	The projector is operating normally.
⏻	Flashing orange	The projector is cooling down. When the light is flashing, you cannot turn the projector on, and you should not unplug it.
⏻	Red	Power is cut off because of an internal problem. Remove the power plug and contact EPSON for help.
💡	Flashing orange	The lamp is almost burned out. This is a good time to replace it.
💡	Flashing red	The lamp is burned out or there is a problem with the ballast power. Replace the lamp and make sure the cover is fastened securely.
🌡	Flashing orange	The projector is too hot. Turn it off and let it cool. Make sure the temperature surrounding the projector does not exceed 104° F and there is plenty of space around and under the projector for ventilation. Clean the air filter if necessary.

Light	Status	Description and action
	Red	The projector has turned off automatically because it has overheated. Let it cool for a few minutes, then turn it back on. Make sure there is plenty of space around and under the projector for ventilation. If it continues to overheat, you may need to change the air filter.
	Flashing red	There is a problem with the cooling fan or temperature sensor. Turn off the projector and unplug it. Contact EPSON for help.

Using the Control Panel



The following table summarizes the functions on the control panel.

Button	Function
Power	Starts or stops projection.
Help	Displays the online help menu.
Computer	Switches between Computer 1 and Computer 2.
A/V mute	Turns off the audio and video, displaying the black, blue, or user logo background.
Resize	Resizes SXGA and other video formats so they appear correctly on the screen. Switches the aspect ratio between 4:3 and 16:9 when video images are being projected.
Video	Switches between standard (composite) video, S-Video, and component video (BNC).
Menu	Displays or hides the menu screen.
Esc	Stops the current function. Pressing Esc while viewing a menu or the online help displays the previous screen or menu.
Sync + Sync –	Synchronizes the computer's graphic signal. Use these buttons to adjust an image that is fuzzy or streaked, or to select menu items. Allows selection of a menu if the menu screen is displayed.
Tracking – Tracking +	Matches the projector's internal clock to computer graphic signals (tracking adjustment). Use these buttons to adjust an image with vertical fuzzy lines, or to change settings during menu operations.
Enter	Selects a menu option or the next menu/help screen. Pressing Enter when no menu or help screen is displayed optimizes the computer image.
Shift	Pressing the shift and Keystone buttons at the same time increases or decreases the sound volume.
– Keystone +	Squares up a raised image, correcting up to a ±30° tilt.
– Volume +	Adjusts the volume when pressed with the Shift button.

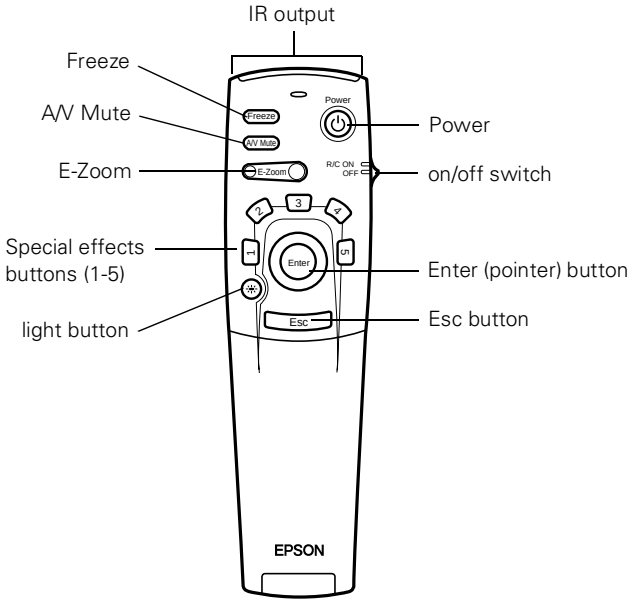
Using the Remote Control

The remote control uses a line-of-sight infrared signal. It lets you access the projector's features from anywhere in the room—up to 32 feet away. (This distance may be shorter if the remote control batteries are low.) If you have connected the mouse cable, you can also use the remote control as a wireless mouse.

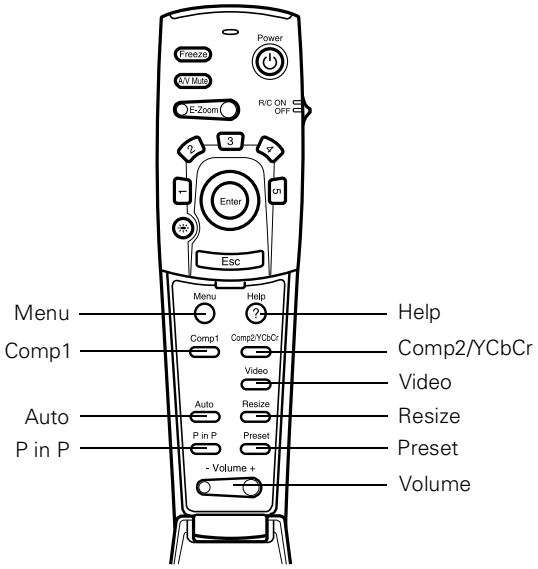
The projector may not respond to remote control commands in these conditions:

- ❏ You are too far away or not within 30° to the left or right of the front or rear sensor or 15° above or below
- ❏ The R/C (remote control) switch is in the OFF position
- ❏ Batteries are weak
- ❏ Ambient light is too bright
- ❏ A fluorescent light is shining into the infrared receiver
- ❏ A strong light source (such as direct sunlight) shines into the infrared receiver
- ❏ Other equipment emitting infrared energy is present (such as a radiant room heater)

The remote control buttons are shown in the following illustrations.



Open the cover just below the Esc button to access these remote control buttons:



This table summarizes the functions on the remote control.

Button	Function
Power	Starts or stops the projector.
R/C on/off	Turns the remote control on or off.
Freeze	Keeps the current computer or video image on the screen.
A/V mute	Turns off the audio and video, displaying the black, blue, or user logo background.
E-Zoom	Enlarges or reduces the image size from 1x to 4x (in 32 steps). Pressing the right side of the button enlarges the image, pressing the left side of the button reduces the image. To display a portion of an enlarged image which is outside the display area, press the Enter button and scroll the image to the desired location.
Effects buttons	Display preprogrammed special drawing effects on the screen. Additional effects can be selected through the Effect menu or programmed using the EMP Link V software.
Enter (pointer button)	Use the Enter button to navigate the menus or use the remote as a mouse pointer when the projector is connected to the computer with the main cable and the mouse cable. When the image source is a computer, the Enter button acts as a mouse left-click.
Light	Illuminates all buttons on the remote control temporarily.
Esc	Stops the current function. Pressing Esc while viewing a menu or the online help displays the previous screen or menu. When the image source is a computer, the Esc button acts as a mouse right-click.
Menu	Displays or hides the menu.
Help	Displays the online help menu.
Comp1	Switches to the Computer 1 image.
Comp2/YCbCr	Switches to the Computer 2 or component video source.
Video	Switches to the standard composite video or S-Video source.
Auto	Optimizes the computer image.
Resize	Resizes SXGA and other video formats so they appear correctly on the screen. Switches the aspect ratio between 4:3 and 16:9 when video images are being projected.
P in P	Displays a video or S-video image in a subscreen on the main display. Use the Enter button to reposition the Picture in Picture (P in P) screen, or the E-Zoom button to enlarge or reduce the image. Changes made to the P in P screen location and size are automatically carried over to the next P in P session.

Button	Function
Preset	Saves and recalls up to five different session settings (resolution, tracking, sync signal, and position). To save the current session settings, press the Preset button and it will be assigned the next available number, 1 through 5. To recall a setting, press the Preset button a second time and move to the desired session number. To overwrite a saved setting, move to the setting you want to replace and press Enter. When the confirmation message displays, choose Yes and press Enter.
– Volume +	Adjusts the volume.

The five special effects buttons are preprogrammed with the following functions.

Button	Function
1	Changes the mouse cursor to a pointer or cursor stamp
2	Lets you draw one or more boxes on the screen
3	Spotlights a section of the screen
4	Lets you place a vertical or horizontal bar on the screen to highlight a part of your image
5	Erases the drawing effects on the screen

Note: *You can use the projector's Effect menu to select different options for each of the drawing tools.*

Cleaning the Lens

Warning: *Before you clean any part of the projector, turn it off and unplug the power cord. Never open any cover on the projector, except the lamp and filter covers. Dangerous electrical voltages in the projector can injure you severely. Do not try to service this product yourself, except as specifically explained in this* Product Information Guide*. Refer all other servicing to qualified service personnel.*

Clean the lens whenever you notice dirt or dust on the surface.

- ❏ Use a canister of compressed air to remove dust.
- ❏ To remove dirt or smears on the lens, use lens cleaning paper. If necessary, moisten a soft cloth with an alcohol-based cleaner and gently wipe the lens surface.

Cleaning the Projector Case

Before you clean the projector case, turn off the projector and unplug the power cord.

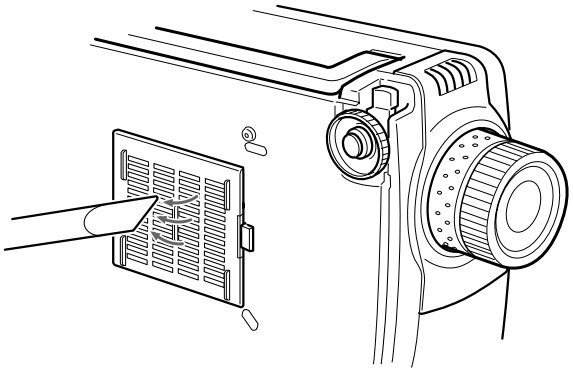
- ❏ To remove dirt or dust, wipe the case with a soft, dry, lint-free cloth.
- ❏ To remove stubborn dirt or stains, moisten a soft cloth with water and a neutral detergent. Then wipe the case.
- ❏ Do not use alcohol, benzene, thinner, or other chemical detergents. These can damage the case.

Cleaning or Replacing the Air Filter

Clean the air filter at the bottom of the projector after every 100 hours of use. If it is not cleaned periodically, it can become clogged with dust, preventing proper ventilation. This can cause overheating and damage the projector.

Follow these steps:

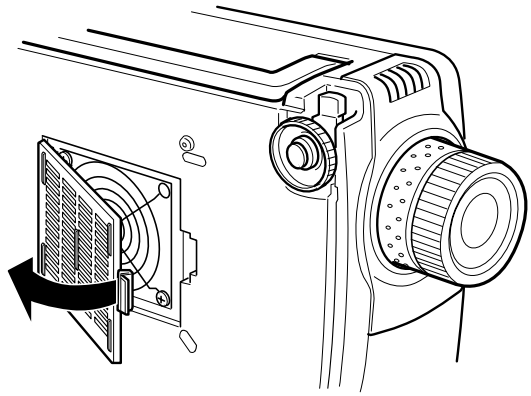
1. Turn off the projector, allow it to cool down, and unplug the power cord.
2. Turn the projector on its side so that the handle is on top and you can access the filter easily.
3. To clean the filter, EPSON recommends using a small vacuum cleaner designed for computers and other office equipment. If you don't have one, gently clean the filter using a very soft brush (such as an artist's camel-hair brush).



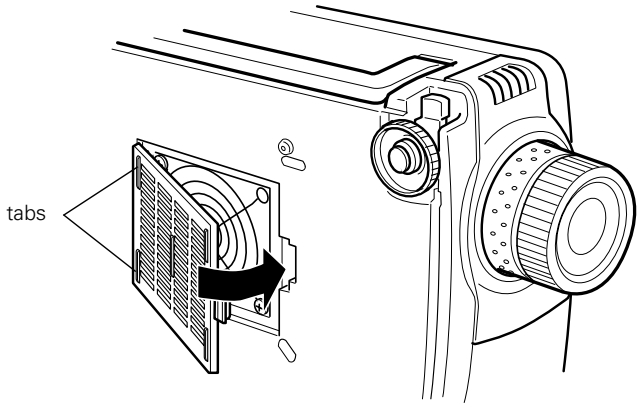
If the dirt is difficult to remove or if the filter is torn, replace it. Contact your dealer or call EPSON at (800) 873-7766 in the United States and Canada to obtain a new one.

Note: *When you get a replacement lamp for your projector, a new air filter is included. You should replace the filter when you replace the lamp.*

4. If you need to replace the filter, remove it as shown below. Make sure the projector is on its side as shown (not turned upside down) to prevent dust from falling inside.



5. To install the new filter, first insert the tabs, then press on the catch until it clicks in place.



Replacing the Lamp

The projection lamp typically lasts for about 1500 hours of use. It is time to replace the lamp when:

- ❏ The projection image gets darker or starts to deteriorate.
- ❏ The lamp warning light is flashing red or orange.
- ❏ The message LAMP REPLACE appears on the screen when the projector lamp comes on (after about 1400 hours of use). To maintain projector brightness and image quality, replace the lamp as soon as possible.

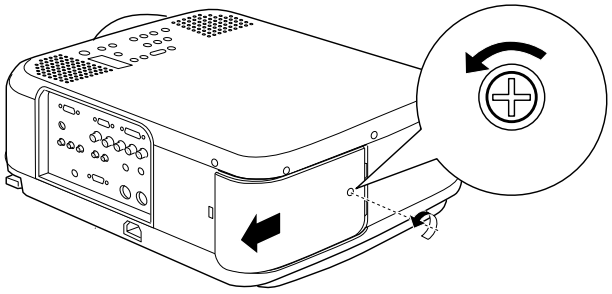
Note: *You can check to see how many hours the lamp has been used through the About menu.*

Contact your dealer or call EPSON at (800) 873-7766 in the United States and Canada for a replacement lamp. Request part number ELPLP12.

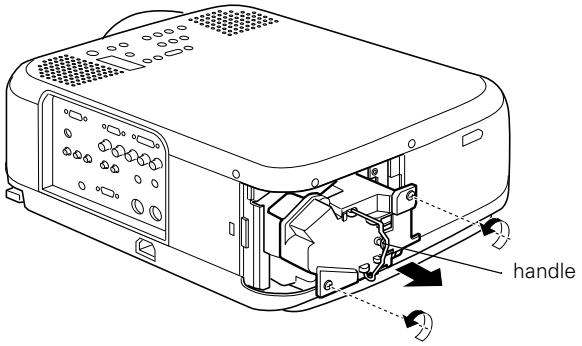
Follow these steps to replace the lamp:

1. Turn off the projector and unplug the power cord.
2. Allow the projector to cool down for at least an hour (if it has been on).
3. Use a screwdriver to loosen the screw on the lamp cover. (You can't remove the screw from the cover.)

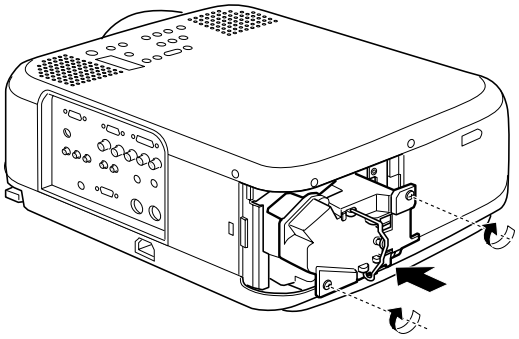
   When the screw is loose, slide off the lamp cover.



4. Use a screwdriver to loosen the two screws holding the lamp in place. (You can't remove these screws.)
5. Lift up the wire handle, as shown, and pull the lamp straight out. (The plastic flap above the lamp will flex out of the way as you remove the lamp.)



6. Fully insert the new lamp. (The plastic flap will flex out of the way.)



Caution: *Do not touch the glass portion of the lamp assembly.*

7. Once the lamp is fully inserted, tighten its screws.

8. Replace the lamp cover and tighten its screw securely. (The projector won't come on if the lamp cover is loose.)
9. Reset the lamp timer as described in the following section.

Resetting the Lamp Timer

After you install a new lamp, you need to reset the timer so the projector can keep track of how many hours it has been used. Follow these steps:

1. Press the Help button and hold it down for at least 5 seconds. The Help menu will be displayed and then you will see a menu asking if you want to reset the lamp ON time.
2. Use the left arrow button (control panel) or press left on the Enter button (remote control) to select Yes.
3. Press Enter to reset the timer.

Optional Accessories

Product	Product number
Replacement lamp and air filter	ELPLP12
Long throw zoom lens	ELPAL01
Wide angle lens	ELPAW01
Customized carrying cases: Samsonite® wheeled soft case ATA molded hard shell case ATA shipping case	 ELPKS35 ELPKS38 ELPKS39
Ceiling mount	ELPMB34
Suspension adapter for ceiling mount	ELPMBAST
Kensington security lock	ELPSL01
Portable projection screens: 60-inch 80-inch	 ELPSC07 ELPSC08
Wireless microphone and two satellite speakers	ELPCUS1
Auxiliary audio system	ELPPAS1
Remote control receiver (plugs into projector to extend range of remote control)	ELPST02
Remote control receiver kit (includes standard receiver and clip-on receiver for attachment directly to remote control)	ELPST04
Macintosh adapter set (includes monitor adapter and desktop adapter)	ELPAP01
VGA to 13W3 video cable (for connecting to certain high-end workstations)	ELPKC06
Digital video cables: DVI to DVI, 10 feet (3 meters) DVI to DFP, 10 feet (3 meters)	 ELPKC20 ELPKC21

You can purchase these accessories from your dealer or by calling EPSON at (800) 873-7766; or visit the EPSON Store at www.epson.com (U.S. sales only). In Canada, please call (800) 873-7766 for dealer referral.

Related Documentation

CPD-11436	EPSON PowerLite 7700p User's Guide
CPD-11437	EPSON PowerLite 7700p Quick Setup Poster
Service Manual	TBD
Parts Price Lists	PL-EMP7700